

REMARKS

Introduction

Claims 1, 5, 18, 19 and 47 have been amended. Claims 16, 17, 29 and 30 have been cancelled. The application now includes claims 1-13, 15, 18-27 and 47.

Applicants thank the Examiner for taking the time to conduct a telephonic interview with the Applicants representative on November 20, 2009. The substance of the interview is reflected in this Amendment. Reconsideration of the rejection of the application is respectfully requested in view of the claim amendments and the following remarks.

The present amendments to independent claims, in general, include limitations that were previously recited in dependent claims. For example, limitations added to claim 1 were previously recited, in general, in now cancelled claims 16 and 17. Therefore, the present amendments after final rejection should be entered and considered.

The Claims are Allowable because the Prior Art Fails to Disclose an IDE with Annotations for Automatically Generating Web Services with Security, Reliable Messaging, and Interceptors

Claims 1-13, 15-27, 29 and 30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bau, III et al., U.S. Patent Publication No. 2003/0005181 ("Bau"), in view of Beged-Dov et al, U.S. Patent Publication No. 2002/0174241 ("Beged-Dov"), in view of The J2EE Tutorial by Sun Microsystems ("J2EE Tutorial"). Claim 47 is rejected under 35 U.S.C. §103(a) as being unpatentable over Bau in view of Beged-Dov and in view of Coe, U.S. Patent No. 6,199,102 ("Cobb"). Reconsideration of these rejections is

respectfully requested because the prior art fails to disclose an IDE with annotations for automatically generating Web services with security, reliable messaging and interceptors.

One embodiment of the invention is a integrated development environment ("IDE") for assisting a software developer in developing components for Web services or "network accessible services". The system includes a compiler that compiles augmented source code. The compiler then generates one or more object files, software components and deployment descriptors to facilitate the automated deployment of Web services. See *e.g.*, ¶ 27 of the present published application (pub. no. 2005/00211689). The augmented source code may include annotations that cause the compiler to automatically create different types of security that can be applied to, for example, request messages, callbacks or response messages, or requests and callbacks originating with intermediate services in a chain. See *e.g.*, *id.* at ¶ 79. A list of role names may be included in the annotation so that role-based security can be automatically generated during compilation. See *e.g.*, *id.* at ¶¶ 93-116. Further, the augmented source code may include annotations that cause the compiler to automatically develop message interception and transformation capabilities for Web services. The interceptors allow developers to apply their own pre and post processing methods to Web service messages, including the transformation of message headers and content. See *e.g.*, *id.* at ¶ 203. Further, the augmented source code may include annotations that cause the compiler to automatically develop reliable messaging

capabilities for guaranteed message delivery between a client and the Web services.

See e.g., id. at ¶ 130.

Bau discloses an annotation base development platform for asynchronous Web services. Code for enhanced Web services are created with an enhanced compiler and annotated source code. For example, code may be automatically generated to manage state associated with multiple, simultaneous conversations, or for managing one or more asynchronous transactions. *See e.g., Bau at ¶ 30.* However, Bau fails to disclose automatically generating security types, interceptors, or reliable messaging for Web services.

Beged-Dov discloses an Internet clipboard service that allows data to be transmitted from a source web service 124 to a destination web service 122 via a client computer 104. *See e.g., Beged-Dov at ¶ 18; Fig. 1.* Beged-Dov discloses “security” in that it discloses that an end user must log in to the clipboard application and be authenticated. *See Beged-Dov at ¶ 19.* However, Beged-Dov fails to disclose automatically generating such security during compilation to generate the web service, and fails to disclose role-based security in the context of Web services. Beged-Dov further discloses intercepting messages between a web service and the client computer. *See Beged-Dov at ¶ 19.* However, Beged-Dov fails to disclose automatically generating an interceptor during software development that transforms message headers.

In contrast to Bau, Beged-Dov, and the other cited prior art, amended independent claim 1 recites an enhanced compiler that automatically generates “at least one security type”, “reliable messaging capabilities” and “message interception and

transformation capabilities". For at least these reasons, independent claim 1, and independent claims 19 and 47, which recite similar limitations, should now be allowable over the cited prior art. The remaining claims depend from one of the above independent claims and should also be allowable for at least the above reasons.

Conclusion

Applicants respectfully request favorable action in connection with this application.

The Examiner is invited and urged to contact the undersigned to discuss any matter concerning this application.

No fee should be required for this submission. However, should any fee be required, the Commissioner is authorized to charge any such fee to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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